In the Claims:

Please amend the claims as follows:

23. An integrated circuit structure formed at the surface of a substrate, comprising:

a plurality of shallow trenches formed in the surface of the substrate;

a nitrogen doped insulating liner grown on sidewalls of the shallow trenches by treating said sidewalls with an oxygen rich atmosphere followed with treating said sidewalls with a nitrogen compound;

a gap filling insulating material filling the shallow trenches level with the surface of the substrate said gap filling insulating material being high temperature annealed to cause said gap filling insulating material to become more dense; and

a plurality transistors formed in the surface of the substrate in regions between said shallow trenches, wherein each of said transistors include a source and a drain formed by diffusing an impurity species into the surface of said substrate, wherein said nitrogen doped insulating liner acts as a stop to prevent said impurity species from diffusing into said substrate from said gap filling insulating material.

24. The integrated circuit structure of claim 23 wherein said nitrogen compound is selected from the group of nitrogen compounds consisting of nitrogen (N_2) gas, ammonia (NH_3), nitric oxide (NO), and nitrous oxide (N_2O).

D1 Concld

25. The integrated circuit structure of claim 23 wherein the oxygen rich atmosphere is selected from the atmospheres consisting of steam and oxygen gas.

26. The integrated circuit structure of claim 23 wherein the treating of the sidewalls of the shallow trenches with the oxygen rich atmosphere of the shallow trenches is at a temperature from approximately 900° C to approximately 1000° C, at a pressure of from approximately 600 Torr to approximately 760 Torr, for a period of time from 60 minutes to 120 minutes.

REMARKS

Examiner Pompey is thanked for the thorough examination of the subject Patent Application. The Claims have been carefully reviewed and amended, and are considered to be in condition for allowance.

Reconsideration of the rejection under 35 USC §103(a) of Claims 23-33 as being unpatentable over U.S. Patent 6,218,720 (Gardner et al.) in light of the following argument. Claim 23 is amended to claim a nitrogen doped insulating liner grown on sidewalls of the shallow trenches by treating the sidewalls with an